

**General Operating Permit for Class 1A and 1B Transient Non-community (TNC)
Public Drinking Water Systems
Issued March 1st, 2010**

Part 1. Coverage Under This General Permit**1. Introduction**

The Water Supply Rule (Environmental Protection Rules Chapter 21) prohibits anyone from operating a public transient non-community (TNC) water system without first receiving a permit to operate from the Secretary of the Agency of Natural Resources ("Secretary"). The Secretary is issuing this general permit for operations at Class 1A and Class 1B TNC Public Drinking Water Systems.

2. Eligibility

Coverage under this general permit is available for new and existing public transient non-community drinking water systems that meet all of the following criteria:

- A. The system must be a Class 1A or 1B system. Class 1A includes TNCs with no treatment and those with ion exchange for water softening, cartridge filters not required to be installed by the Secretary, or limestone contactors for pH adjustment. Class 1B includes TNCs with chlorine or ultraviolet light (UV) disinfection, including standby capability;
- B. Water system construction and all drinking water sources must be permitted or grandfathered by the Wastewater Management Division (i.e., permitted under a Wastewater System and Potable Water Supply Permit issued by the Secretary);
- C. All water treatment, except ion exchange for water softening, cartridge filters (unless required to be installed by the Secretary), or limestone contactors, must be permitted (i.e., Permit to Construct) by the Drinking Water and Groundwater Protection Division, unless installation of the treatment was previously permitted in a Wastewater System and Potable Water Supply Permit or approved in a letter issued by the Secretary.
- D. Systems shall only use groundwater sources. A determination must have been made by the Secretary for each source that it is not groundwater under the direct influence of surface water. Systems using surface water source(s) or source(s) determined to be groundwater under the direct influence of surface water are not eligible for this permit and must obtain an individual permit;
- E. Systems shall meet all applicable state and federal maximum contaminant levels for chemical contaminants; and
- F. Systems shall not pose a public health hazard or significant public health risk as determined by the Secretary.

3. Legal Authority

This general permit is issued in accordance with 10 V.S.A. §1675 and Subchapter 21-3 of the Vermont Water Supply Rule.

Part 2. Authorization to Operate and Filing Requirements

To obtain coverage under this general permit, the water system owner must prepare and submit a complete and accurate notice of intent (NOI) as described in this part. Operation is not authorized if the NOI is incomplete or inaccurate or if the system is not eligible for coverage under this permit.

1. Notice of Intent (NOI)

The water system owner shall apply for coverage under this permit by filing a NOI on a form provided by the Secretary. The completed NOI shall be filed with the Agency of Natural Resources at the following address:

Department of Environmental Conservation
Drinking Water and Groundwater Protection Division
1 National Life Drive- Main 2
Montpelier, VT 05620-3521

The application must be signed by the water system owner.

2. Determination of Complete Application and Authorization to Operate

An applicant shall be authorized to operate pursuant to this general permit upon receipt of the written determination by the Secretary that the application is complete as long as the system is eligible for coverage under the terms and conditions of the permit.

Part 3. Certified Operator

The permittee shall be a certified operator or shall place the direct supervision of the water system under the responsible charge of a certified operator. The permittee shall designate a certified operator to carry on the daily operations of the system. The designation must be in writing, signed by the owner and certified operator, and available to the Secretary upon request. In the absence of such designation, the owner shall be accountable for all duties and responsibilities pursuant to the Water Supply Rule, Subchapter 21-12. The certified operator shall hold a valid certification of equal or higher class than the classification of the water system.

The permittee must have a designated certified operator in responsible charge available at all times. "Available" means, based on system size, complexity, and source water quality, that a certified operator must be on-site or able to be contacted as needed to initiate the appropriate action in a timely manner.

Part 4. Facility and Operation Requirements

The water supplier shall comply with all of the facility and operation requirements pursuant to the Water Supply Rule, Subchapter 21-7 and Appendix A, as applicable. Some routine facility and operation requirements and recommendations are outlined below.

1. Operation and Maintenance Manual

Systems are encouraged to develop an Operation and Maintenance Manual and operate in accordance with the manual.

2. Sample Taps

Sample taps shall be provided so that water samples can be obtained from (1) each water source (i.e., raw water sample); (2) appropriate locations pre and post treatment; and (3) throughout the distribution. Taps used for obtaining bacteriological samples should be the smooth nosed type without interior or exterior threads, and should not be of the mixing type or have a screen, aerator, or other such appurtenance.

3. Bacteriological Sampling Plan

All systems must develop and adhere to a written bacteriological sampling plan. The plan shall include a map of the water system and identify sites that represent water quality throughout the entire distribution system where total coliform samples will be collected (see Part 5 Monitoring Requirements).

4. Atmospheric Water Storage Tanks

All atmospheric water storage tanks shall be comprehensively inspected inside and out at least once every five years, and cleaned if necessary. The inspection of the outside of a buried or partially buried tank may be limited to exposed portions. The permittee shall document the inspection, findings, and subsequent servicing and retain documentation in the system's files for review upon request.

5. Disinfection

Disinfecting drinking water helps protect people from pathogens which cause disease and can be fatal. The Secretary may require a system to install a disinfection facility and operate it intermittently or continuously when he or she determines it is necessary to protect public health (e.g., when a source is determined to be vulnerable to pathogenic contamination).

The Secretary recommends that all TNCs have the capability to disinfect continuously. Before installing treatment, including disinfection, the system must obtain a permit to construct from the Drinking Water and Groundwater Protection Division.

A. Disinfection Using Chlorine

Systems that disinfect using chlorine must be capable of maintaining the minimum free chlorine disinfection residual needed for 4-log inactivation of viruses prior to first use. The required residual for 4-log inactivation depends on the system's credited volume and peak flow, as well as the water's pH and temperature. In addition, the permittee must maintain a minimum free chlorine residual of 0.1 mg/L at distant points in the distribution. The residual entering distribution must not exceed the maximum residual disinfection level of 4.0 mg/L.

To ensure a sufficient residual is maintained, systems shall sample at least once per day the free chlorine residual of the water as it enters distribution. The results must be reported on a monthly report form provided by the Secretary (see Part 6 Reporting and Recordkeeping Requirements). Systems must also measure the free chlorine residual at the time and location when coliform samples are collected. The residual must be reported on the sample collection field form provided by the laboratory.

The permittee shall use chlorine residual testing equipment capable of measuring residuals to the nearest 0.1 mg/L.

B. Disinfection Using Ultraviolet Light (UV)

Systems that disinfect using ultraviolet light shall clean the unit's quartz sleeve and replace the bulb at least annually. More frequent cleaning or bulb replacement may be necessary in some installations.

Systems using UV shall also maintain at the facility an operation and maintenance report on a form provided by the Secretary and submit the completed form as part of the TNC annual report (see Part 6 Reporting and Recordkeeping

Requirements). The report shall document the dates and types of maintenance and repairs conducted, including cleaning, bulb replacement, etc.

6. Seasonal Water Systems

Systems that are not in service year-round should develop a plan with step-by-step procedures for starting up and closing down the water system. The plan should outline measures to help avoid potential water quality problems when reopening. Closing procedures should include shutting down the water source, draining water lines, and securing all fixtures and pipes so no contamination can enter the system. Startup procedures should include inspecting the source, storage, treatment, and distribution; starting water flow from the source; pressurizing and flushing the system; and shock chlorinating. Details regarding startup and shutdown procedures are available from the Drinking Water and Groundwater Protection Division.

In addition to routine total coliform samples described below, seasonal systems must collect a coliform sample before, but not more than 10 days prior to, service startup (i.e., serving water to the public). If the system is shock chlorinated as part of startup, the entire distribution system should be flushed to remove the chlorine residual prior to testing and serving water to the public.

Part 5. Monitoring Requirements

The permittee shall comply with all of the drinking water quality monitoring requirements pursuant to the Water Supply Rule, Subchapter 21-6 and Appendix A, Part 11. The routine monitoring requirements for systems eligible for coverage under this permit are listed below. Based on local site conditions (e.g., geology and land use activities) and historical test results, the Secretary may require additional monitoring to ensure the water is safe to drink. If such additional monitoring is required, the Secretary shall notify the permittee by mail.

All routine samples, except for chlorine residual, must be analyzed by a certified laboratory. A list of certified laboratories is available from the WSD or online at the Vermont Department of Health website (<http://healthvermont.gov/>).

- A. *Nitrate* – The permittee shall monitor for nitrate at least once per year for each water source. The sample shall be taken as close to the source as possible following any treatment. For multiple sources that combine prior to distribution, one representative sample may be collected.
- B. *Total Coliform* – The permittee shall collect a routine sample for total coliform bacteria at least once per calendar quarter for each source. Samples must be collected in accordance with a written bacteriological sampling plan. For multiple sources that combine prior to distribution, one representative sample may be collected. Systems that chlorinate must also measure the free chlorine residual at the time and location when coliform samples are collected. The residual must be reported on the sample collection field form provided by the laboratory.

If coliform is detected in a routine sample, the system must take four repeat samples within 24 hours and five routine samples during the following calendar month that water is served to the public. One of the four repeat samples must be collected from the source prior to any treatment or storage (i.e., a representative raw water sample). Based on the results of the additional tests, and as directed by the Secretary, the system may have to conduct more tests, notify their customers, and/or issue a “Boil Water” notice.

In addition to the routine samples, systems that are not in service year-round (e.g., seasonal campgrounds) must collect a sample for total coliform before, but not more than 10 days prior to, service startup (i.e., serving water to the public).

- C. *Chlorine Residual* – Systems that chlorinate shall sample at least once per day the free chlorine residual of the water as it enters distribution. The results must be reported on a monthly report form, provided by the Secretary

(see Part 6 Reporting and Recordkeeping Requirements). The permittee shall use chlorine residual testing equipment capable of measuring residuals to the nearest 0.1 mg/L.

Part 6. Reporting and Recordkeeping Requirements

The permittee shall comply with all of the reporting and recordkeeping requirements pursuant to the Water Supply Rule, Subchapter 21-9. The primary requirements are outlined below.

- A. *Test Results* – Except where a shorter period is specified in 40 CFR Part 141 Subpart D, the permittee shall report to the Secretary the results of any test measurement or analysis required within (1) the first ten days following the month the result is received, or (2) the first ten days following the end of the required monitoring period as stipulated by the Secretary, whichever is shorter.

The permittee shall notify the Drinking Water and Groundwater Protection Division immediately (no later than 24 hours) upon learning of any test result equal to or greater than the maximum contaminant level (MCL) or maximum residual disinfection level (MRDL) as specified under 40 CFR Part 141.

- B. *Annual Report* – The permittee shall submit to the Secretary a signed report no later than September 30th each year. The report, updating administrative and operational information, must be on a form provided by the Secretary. For systems using ultraviolet light (UV) for disinfection, the report shall also include information regarding the operation and maintenance of the UV treatment system recorded on a form provided by the Secretary.

- C. *Monthly Report* – For systems that add a chemical disinfectant (e.g., chlorine) to the drinking water, the permittee shall submit to the Secretary a signed monthly report, in addition to the annual report described above, no later than ten days following the end of each month. The report must be submitted on a form provided by the Secretary.

- D. *Record Keeping* – The permittee shall retain on the system premises, or at a location convenient to the premises, the following:

1. Records of bacteriological analyses for at least five years;
2. Records of chemical analyses for at least ten years;
3. Records of actions to correct violations for at least three years after the last action taken with respect to the particular violation involved;
4. Copies of written reports, summaries, or communications relating to sanitary surveys for at least ten years after completion of the sanitary survey involved;
5. Copies of public notices issued and certifications made to the Secretary pursuant to the Water Supply Rule for at least three years after issuance.

Part 7. Standard Conditions

1. Duty to Comply

The permittee shall comply with all terms and conditions of this general permit; all applicable provisions of 10 V.S.A § 1671 et seq., the rules adopted there under, and those applicable provisions of the federal Safe Drinking Water Act and federal regulations. Any permit noncompliance may be cause for an enforcement action and/or revocation, modification, or suspension of the permittee's authorization to operate under this permit. Such legal proceedings may include, but are not limited to, the issuance of orders, the levying of penalties, and imprisonment.

2. Expiration Date

This permit expires on February 28, 2020.

3. Duty to Reapply

If the authorized water system intends to operate after the expiration date of this permit, the permittee shall reapply for coverage under an applicable general permit or individual permit at least 30 days prior to the expiration date of this permit.

4. Transfer of Authorization to Operate

Authorization to operate issued pursuant to this general permit is not transferable or assignable and shall automatically become invalid upon a change of ownership of the Water System. The new owner must obtain coverage under this general permit or under an individual permit prior to operation of the water system.

5. Termination of Coverage

To terminate coverage under this permit, if for example the permittee sells the water system, the permittee shall file a notice of termination (NOT) on a form provided by the Secretary. The completed NOT shall be filed with the Agency of Natural Resources at the following address:

Department of Environmental Conservation
Drinking Water and Groundwater Protection Division
1 National Life Drive- Main 2
Montpelier, VT 05620-3521

The NOT shall be signed by the permittee.

6. Requiring an Individual Permit

The Secretary may require any person who files an application for coverage or who is already covered under this general permit to apply for an individual permit if the public water system does not qualify for coverage under this general permit, or if the Secretary finds that an individual permit is required.

7. System Modifications

The permittee shall contact the Drinking Water and Groundwater Protection Division and obtain required permits before beginning any modifications to the water system (e.g., installing treatment or storage, deepening an existing source, developing a new source, etc.) or before using any other water source to supply water to the system (e.g., emergency source connection, hauled or bulk water delivery).

8. Right of Entry

The permittee shall allow the secretary or his or her authorized representatives, upon presentation of credentials to:

- A. Enter upon the permittee's premises where the water system is located and collect drinking water samples or inspect any components of the system to determine compliance with this general permit; and
- B. Have access to and copy any records required to be kept pursuant to this general permit.

9. Compliance with Additional Conditions or Schedules

The permittee shall comply with any additional conditions, requirements, schedules, restrictions, monitoring or testing programs that are deemed necessary by the Secretary to assure compliance with the Water Supply Rule (Environmental Protection Rules Chapter 21), the federal Safe Drinking Water Act, or to prevent risk to public health. Such conditions may include requirements based on the findings of a sanitary survey or other inspection.

10. Posting of Authorization to Operate

The permittee shall post the written authorization to operate from the Secretary in a conspicuous place at the water system.

11. Right to Appeal

Pursuant to 10 V.S.A. Chapter 220, any appeal of this decision must be filed with the clerk of the Environmental Court within 30 days of the date of the decision. The appellant must attach to the Notice of Appeal the entry fee of \$225.00 payable to the State of Vermont.

The Notice of Appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Court; and must be signed by the appellant or their attorney. In addition, the appeal must give the address or location and description of the property, project or facility with which the appeal is concerned and the name of the applicant or any permit involved in the appeal.

The appellant must also serve a copy of the Notice of Appeal in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings.

For further information, see the Vermont Rules for Environmental Court Proceedings, available on-line at www.vermontjudiciary.org. The address for the Environmental Court is 2418 Airport Road, Suite 1, Barre, VT 05641 (Tel. #802-828-1660).

This permit and related environmental information are available electronically via the internet. For information visit us through the Vermont Homepage at <http://www.vermont.gov> or visit DWGPD directly at <http://www.vermontdrinkingwater.org>

Drinking Water and Groundwater Protection Division
1 National Life Drive, Main, 2nd Floor
Montpelier, VT 05620-3521
Toll free 1-800-823-6500
Out of State 1-802-241-3400
Fax 1-802-828-1540